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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,317	10/19/2001	Alan J Smith	213649	5854

23460 7590 10/05/2004

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EXAMINER

ROSENBERGER, RICHARD A

ART UNIT PAPER NUMBER

2877

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,317

Applicant(s)

SMITH, ALAN J

Examiner

Richard A Rosenberger

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender et al. (US 6,181,426).

Bender et al teaches an apparatus and method for measuring decay in light intensity by electromagnetic radiation passing through a radiation-absorbing sample by absorption of radiation by the sample by deriving a value of the decay from measurements of intensity produced as a number on different positions along a predetermined path, with the light reflecting back and forth between reflectors spaced apart from each other. In column 5, lines 49-62 in particular, there is a discussion of having the detectors detect the light simultaneously. This requires an arrangement in which part of the light passes to each detector and part is reflected to on to the next detector; such an arrangement is a "partially reflective means" in that it will reflect part, but not all, of the light at the position of each detector (except possibly the last).

Bender et al at least suggests deriving the decay value from all of the detected values (see the discussion relative to figure 2, column 4, line 37 through column 5, line 4). Those in the art could choose appropriate light sources, filters, pathlengths, etc. as appropriate for the application at hand.

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column 5, line 4). Those in the art could choose appropriate light sources, filters, pathlengths, etc. as appropriate for the application at hand.

3. The remarks filed 23 February 2004 have been considered but have not been found persuasive. The remarks appear to argue structural differences that are disclosed, but are not claimed. The argument of the remarks that the “deflectors” shown in figure 3 of the Bender reference are not “partially reflective means” is not correct; each (except the last) creates a reflected part of the light incident thereon, and creates an unreflected part of the light, namely the part that passes through the apertures. As these areas reflect part and transmit part of the light, they are “partially reflective means” by any reasonable definition of that term. Further, it should be noted that the particular use, the intent and the purpose of these means in the reference is to partially reflect and partially pass the light, that is, to be a partially reflective means.

The remarks argue that the reference shows a plurality of different optical paths, while claim 1 calls for the partially reflecting means being spaced apart from each other “along a predetermined path”. As seen in figure 1, the means are spaced apart from each other along a predetermined zigzag path. The term “path” is a somewhat general term that is not limited in its meaning to a single geometrical ray, but can, and often in the art does, refer to a path with definite width and breadth; the cross section of a path can have area. By reasonable and usual usage of the

term in the art, the partially reflecting means of the reference are “spaced apart along a predetermined path through the sample”. The fact that the system of the reference can also be referred to as having plural paths does not change this usual usage in the art, and does not give patentable weight to an inherently general term in the art.

The remarks point out that the reference teaches that there can be a chopper drum in the system to measure each portion of the path through the gas. As pointed out in the rejection, the reference specifically teaches that the chopper drum can be omitted (column 5, lines 49-62).

4. As noted above, the arguments in the remarks are not persuasive because they do not relate to what is claimed, although do relate to what is disclosed. Claims that clearly were limited in the manner argued, definitely limiting the “partially reflecting means” of the claim to the type of partially reflecting means argued, would distinguish over the art and would appear to be allowable.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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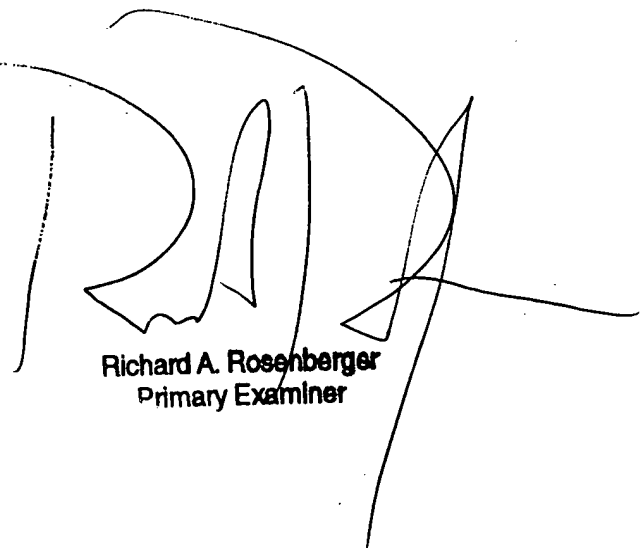
the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard A Rosenberg whose telephone number is (571) 272-2428. The examiner can normally be reached on Monday through Friday during the hours of 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R. A. Rosenberg
30 September 2004



Richard A. Rosenberg
Primary Examiner